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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/410,751	10/01/1999	JEA-YONG YOO	2950-0138	7386

7590 09/11/2003

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EXAMINER

TRAN, THAI Q

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/410,751

Applicant(s)

YOO ET AL.

Examiner

Thai Tran

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 6) ☐ Other: .

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5 and 7-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Cloutier ('387).

Regarding claim 1, Cloutier discloses a method for creating digital transport stream units (Fig. 2), comprising the steps of:

(a) detecting program clock references (the PCR detector 124 of Fig. 2, col. 10, lines 27-39) contained in received digital transport stream packets;

(b) creating the transport time reference for each transport stream packet based upon the detected program clock references and arrival times of the correspondent transport stream packet (col. 10, lines 41-52 and col. 11, lines 20-47); and

(c) creating transport stream units by adding each of the created transport time reference to the associated transport stream packet (col. 11, lines 20-47).

Art Unit: 2615

Regarding claim 2, Cloutier discloses the claimed wherein said step (b) creates the transport time reference of each transport stream packet based upon an error, defined as the difference between the time difference of selectively inserted program clock references and the arrival time difference of transport stream packets containing the program clock references (col. 12, lines 27-54).

Regarding claim 3, Cloutier discloses the claimed wherein said step (b) increases or decreases the transport time reference by the time corresponding to said error (col. 12, lines 27-54).

Regarding claim 4, Cloutier discloses the claimed wherein said step (b) creates the transport time reference for an arbitrary transport stream packet received between two transport stream packets having program clock references by compensating the arrival time of the arbitrary transport stream packet by the amount corresponding to the proportion of the arrival time difference between the arbitrary transport stream packet and a first transport stream packet of said two packets to the arrival time difference of said two transport stream packets (col. 12, lines 27-54).

Regarding claim 5, Cloutier discloses the claimed wherein said transport time reference is the reference information upon which the timing of the transmission of the transport stream packets is based when the transport packets are transmitted to an external device after the transport stream packets are reproduced from a storage medium (col. 7, lines 9-18, col. 9, lines 44-54, and col. 16, lines 58-63).

Regarding claim 7, Cloutier discloses a method for creating digital transport stream units (Fig. 2), comprising the steps of:

(a) storing received digital transport stream packets together with their arrival times temporarily (a buffer 144 of Fig. 2, col. 11, lines 20-47);

(b) compensating the temporarily stored arrival time of each transport stream packet based upon the time difference of program clock references and the arrival time difference of the transport stream packets when more than two program clock references are detected from said received digital transport stream packets (col. 12, lines 27-54); and

(c) creating transport stream units by adding each of the compensated arrival times to the associated transport stream packet as a transport time reference (col. 11, lines 20-47).

Regarding claim 8, Cloutier discloses a method for creating digital transport stream units (Fig. 2), comprising the steps of:

(a) detecting program clock references from received transport stream packets while storing the received digital transport stream packets together with their arrival times (col. 10, lines 32-39 and col. 11, lines 20-47);

(b) detecting the stored arrival times of the transport stream packets containing the detected program clock references (col. 10, lines 32-39);

(c) comparing the difference of the two program clock references detected in said step (a) with the arrival time difference of the two transport stream packets detected in said step (b) (col. 12, lines 27-54);

(d) compensating the stored arrival time of each transport stream packet based upon the comparison result (col. 12, lines 27-54); and

(e) creating transport stream units to adding the compensated arrival time to each transport stream packet as a transport time reference (col. 11, lines 20-47).

Regarding claim 9, Cloutier discloses an apparatus for recording digital transport stream (Fig. 2), comprising:

- a means (the PCR detector 124 of Fig. 2, col. 10, lines 32-39) for detecting program clock references contained in received digital transport stream packets;

- a means (col. 12, lines 27-54) for comparing the detected program clock references with the arrival times of the transport stream packets;

- a means (col. 12, lines 27-54) for creating the transport time reference of said each transport stream packet based upon the comparison result; and

- a means (col. 11, lines 20-47) for constructing transport stream units by adding the created transport time reference of said each transport stream packet to the associated transport stream packet.

Regarding claim 10, Cloutier discloses an apparatus for recording digital transport streams (Fig. 2), comprising:

- a means (the jitter calculator 168 of Fig. 2, col. 12, lines 45-54) for creating arrival times of received digital transport stream packets;

- a means (the PCR detector 124 of Fig. 2, col. 12, lines 32-39) for detecting program clock references contained in the received digital transport stream packets;

- a means (col. 12, lines 27-54) for comparing the detected program clock references with the created arrival times;

Art Unit: 2615

a means (col. 12, lines 27-54) for compensating the created arrival times based upon the comparison result; and

a means (col. 11, lines 20-47) for constructing transport stream units by adding the compensated arrival times to the corresponding transport stream packets as transport time references.

Regarding claim 11, Cloutier discloses the claimed wherein said compensating means compensates the created arrival times of the received digital transport stream packets so that the difference between the detected program clock references equals to the difference between the arrival times of the transport stream packets containing the detected program clock references (col. 11, lines 20-47 and col. 12, lines 27-54).

Regarding claim 12, Cloutier discloses an apparatus (Fig. 2) for recording digital transport stream, comprising:

time information extractor (the PCR detector 124 of Fig. 2, col. 12, lines 32-39) of detecting program clock references contained in received digital transport stream packets;

time comparator (col. 12, lines 27-54) of comparing the detected program clock references from said time information extractor with the arrival times of the transport stream packets;

transport time generator (col. 12, lines 27-54) of creating the transport time reference of said each transport stream packet based upon the comparison result from said time comparator; and

data constructor (col. 11, lines 20-47) of constructing transport stream units by adding the created transport time reference from said transport time generator of said each transport stream packet to the associated transport stream packet.

Regarding claim 13, Cloutier discloses wherein said transport time generator creates the transport time reference of each transport stream packet based upon an error, defined as the difference between the time difference of the detected program clock references and the arrival time difference of transport stream packets containing the program clock references (col. 12, lines 27-54).

Regarding claim 14, Cloutier discloses the claimed wherein said transport time generator increases or decreases the transport time reference by the time proportional to said error (col. 12, lines 27-54).

Regarding claim 15, Cloutier discloses the claimed wherein said transport time generator creates the transport time reference for an arbitrary transport stream packet received between two transport stream packets having program clock references by compensating the arrival time of the arbitrary transport stream packet by the amount corresponding to the proportion of the arrival time difference between the arbitrary transport stream packet and a first transport stream packet of said two packets to the arrival time difference of said two transport stream packets (col. 12, lines 27-54).

Regarding claim 16, Cloutier discloses an apparatus (Fig. 2) for recording digital transport streams, comprising:

transport time generator (the jitter calculator 168 of Fig. 2, col. 12, lines 45-54) of creating arrival times of received digital transport stream packets;

time information extractor (the PCR detector 124 of Fig. 2, col. 10, lines 33-39) for detecting program clock references contained in the received digital transport stream packets;

time comparator (col. 12, lines 27-54) of comparing the detected program clock references from said time information generator with the created arrival times from said transport time generator;

time compensator (col. 12, lines 27-54) of compensating the created arrival times from said transport time generator based upon the comparison result of said time comparator; and

data constructor (col. 11, lines 20-47) of constructing transport stream units by adding the compensated arrival times from said time compensator to the corresponding transport stream packets as transport time references.

Regarding claim 17, Cloutier discloses the claimed wherein said time compensator compensates the created arrival time based upon an error, defined as the difference between the time difference of the detected program clock references and the arrival time difference of transport stream packets containing the program clock references (col. 12, lines 27-54).

Regarding claim 18, Cloutier discloses the claimed wherein said time compensator increases or decreases the created arrival time by the time proportional to said error (col. 12, lines 27-54).

Regarding claim 19, Cloutier discloses the claimed wherein said time compensator compensate the created arrival time of an transport stream packets having

Art Unit: 2615

program clock references by the amount corresponding to the proportion of the arrival time difference between the arbitrary transport stream packet and a first transport stream packet of said two packets to the arrival time difference of said two transport stream packets (col. 12, lines 27-54).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cloutier ('387).

Cloutier discloses all the claimed features as discussed in claim 1 above except for providing the claimed recording the created transport stream units on a rewritable recording medium having a digital data recording format.

Cloutier teaches in col. 8, lines 18-20 that the crated transport stream units can be transmitted or stored.

It is noted that recording compressed video signal on the rewritable recording medium such as magnetic tape in the conventional VCR or VTR is old and well known in the art and therefore Official Notice is taken.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known rewritable recording medium into Cloutier's system in order to use single recording medium for many times because to the capability of rewritable.

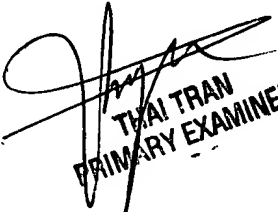
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited references relate to an apparatus for detecting/correcting PCR jitter.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Tran whose telephone number is (703) 305-4725. The examiner can normally be reached on Mon. to Friday, 8:00 AM to 5:30 PM.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


THAI TRAN
PRIMARY EXAMINER